

What I claim as my invention is:

1. A desiccant container for use in a refrigerant storage device of a vehicle, the container comprising

5 - a lid comprising an inner boundary defining a first aperture, an outer boundary surrounding the inner boundary, and an integral first mesh screen extending between the inner boundary and the outer boundary, wherein the first mesh screen is adapted to prevent small particles from passing therethrough;

- a body comprising an inner wall defining a second aperture, an outer wall surrounding the inner wall, and an integral second mesh screen extending between the inner wall and the outer wall, wherein the second mesh screen is adapted to prevent small particles from passing therethrough;

wherein the lid and the body are adapted to fit together to create an enclosed cavity, and to prevent small particles from passing between an edge of the lid and the body, and when the lid and the body are together, the first aperture and the second aperture are aligned.

2. The container of claim 1 wherein the first mesh screen comprises an integrally molded support structure.

3. The container of claim 2 wherein the support structure is in the form of a lattice.

4. The container of claim 1 wherein the second mesh screen comprises an integrally molded support structure.

5 5. The container of claim 4 wherein the support structure of the body is in the form of a lattice.

6. The container of claim 1 wherein an outer surface of the outer boundary of the lid comprises an integrally molded bead, adapted to securely engage an inner surface of  
10 the outer wall of the body.

7. The container of claim 6 wherein the inner surface of the outer wall of the body comprises a groove, for secure receipt of the bead of the lid.

8. The container of claim 7 wherein each of the inner  
15 surface of the outer wall of the body and the outer surface of the inner wall of the body comprises an integrally molded support rib for supporting the lid in the body.

9. The container of claim 1 wherein an inner surface of the inner wall is adapted to securely engage an outlet  
20 tube for the refrigerant storage device.

10.           The container of claim 1 wherein the inner surface of the inner wall comprises an integrally molded outlet tube support rib for supporting the outlet tube.

11.           The container of claim 10 wherein the inner  
5 surface of the inner wall of the body, below the outlet tube support rib, comprises a liner support rib for supporting the body on a liner.

12.           The container of claim 11 wherein the outer  
boundary of the lid is generally circular, the inner  
10 boundary of the lid is generally circular, the outer wall of the body is generally cylindrical and the inner wall of the body is generally cylindrical and, when the container is installed within the liner, with the outlet tube installed within the inner wall of the body, the combination of the  
15 diameter of the inner wall of the body, the outlet tube support rib and the liner support rib are adapted to prevent particles larger than 350 microns from passing between the body and the outlet tube and to prevent particles larger than 350 microns from passing between the inner wall of the  
20 body and the liner.

13.           The container of claim 1 wherein the outer surface of the outer wall of the body, near an upper edge of the outer surface, comprises a bead for secure engagement with one of the refrigerant storage device and a liner.

14. The container of claim 13 wherein one of the refrigerant storage device and the liner comprises a groove for secure receipt of the bead of the outer surface of the outer wall of the body.

5 15. The container of claim 1 wherein the first mesh screen and the second mesh screen are both adapted to prevent particles larger than 300 microns from passing therethrough.

16. The container of claim 1 wherein the lid and the  
10 body are adapted to allow the lid to fit securely within the body to prevent particles larger than 350 microns from passing between an edge of the lid and the body.

17. A desiccant container for use in a refrigerant storage device of a vehicle, the container comprising at  
15 least one integral mesh screen, each mesh screen preventing small particles from passing therethrough.

18. The desiccant container of claim 17 wherein the container comprises two integral mesh screens, one forming an upper surface of the desiccant container and the other  
20 forming a lower surface of the desiccant container.

19. The desiccant container of claim 18 wherein each mesh screen is adapted to prevent particles larger than 300 microns from passing therethrough.

20. A refrigerant storage device for a vehicle, the  
refrigerant storage device comprising a desiccant container  
wherein the container comprises at least one integral mesh  
screen, each mesh screen preventing small particles from  
5 passing therethrough.